

R-frame-compat^{11,40}

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R-frame-compat( $A; B$ )
 $\equiv_{\text{def}}$  ifReffect?( $A$ )
  then ifRframe?( $B$ )
    then (Rframe-x( $B$ ) = Reffect-x( $A$ ))  $\Rightarrow$  (Reffect-knd( $A$ )  $\in$  Rframe-L( $B$ ))
    ifRaframe?( $B$ )
      then (Raframe-k( $B$ ) = Reffect-knd( $A$ ))  $\Rightarrow$  (Reffect-x( $A$ )  $\in$  Raframe-L( $B$ ))
    ifRrframe?( $B$ )
      then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x( $B$ ); Reffect-ds( $A$ )))
         $\Rightarrow$  (Reffect-knd( $A$ )  $\in$  Rrframe-L( $B$ ))
      else True
    fi
  ifRsends?( $A$ )
    then ifRsframe?( $B$ )
      then (Rsframe-lnk( $B$ ) = Rsends-l( $A$ ))
         $\Rightarrow$  (Rsframe-tag( $B$ )  $\in$  map(( $\lambda p.p.1$ ); Rsends-g( $A$ )))
         $\Rightarrow$  (Rsends-knd( $A$ )  $\in$  Rsframe-L( $B$ ))
      ifRbframe?( $B$ )
        then (Rbframe-k( $B$ ) = Rsends-knd( $A$ ))  $\Rightarrow$  (Rsends-l( $A$ )  $\in$  Rbframe-L( $B$ ))
      ifRrframe?( $B$ )
        then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x( $B$ ); Rsends-ds( $A$ )))
           $\Rightarrow$  (Rsends-knd( $A$ )  $\in$  Rrframe-L( $B$ ))
        else True
      fi
    ifRpre?( $A$ )
      then if Rrframe?( $B$ )
        then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x( $B$ ); Rpre-ds( $A$ )))
           $\Rightarrow$  (locl(Rpre-a( $A$ ))  $\in$  Rrframe-L( $B$ ))
        else True
      fi
    else True
  fi

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clarification:

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R-frame-compat( $A; B$ )
 $\equiv_{\text{def}}$  ifReffect?( $A$ )
  then ifRframe?( $B$ )
    then (Rframe-x( $B$ ) = Reffect-x( $A$ )  $\in$  Id)
       $\Rightarrow$  (Reffect-knd( $A$ )  $\in$  Rframe-L( $B$ )  $\in$  Knd)
    ifRaframe?( $B$ )
      then (Raframe-k( $B$ ) = Reffect-knd( $A$ )  $\in$  Knd)
         $\Rightarrow$  (Reffect-x( $A$ )  $\in$  Raframe-L( $B$ )  $\in$  Id)

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    ifRrframe?(B)
      then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x(B); Reffect-ds(A)))
            $\Rightarrow$  (Reffect-knd(A)  $\in$  Rrframe-L(B)  $\in$  Knd)
      else True
    fi
  ifRsends?(A)
  then ifRsframe?(B)
    then (Rsframe-lnk(B) = Rsends-l(A)  $\in$  IdLnk)
          $\Rightarrow$  (Rsframe-tag(B)  $\in$  map(( $\lambda p.p.1$ ); Rsends-g(A))  $\in$  Id)
          $\Rightarrow$  (Rsends-knd(A)  $\in$  Rsframe-L(B)  $\in$  Knd)
    ifRbframe?(B)
      then (Rbframe-k(B) = Rsends-knd(A)  $\in$  Knd)
            $\Rightarrow$  (Rsends-l(A)  $\in$  Rbframe-L(B)  $\in$  IdLnk)
    ifRrframe?(B)
      then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x(B); Rsends-ds(A)))
            $\Rightarrow$  (Rsends-knd(A)  $\in$  Rrframe-L(B)  $\in$  Knd)
      else True
    fi
  ifRpre?(A)
  then if Rrframe?(B)
    then ( $\uparrow$ fpf-dom(id-deq; Rrframe-x(B); Rpre-ds(A)))
          $\Rightarrow$  (locl(Rpre-a(A))  $\in$  Rrframe-L(B)  $\in$  Knd)
    else True
  fi
else True
fi

```